



Air Quality
PERMIT TO CONSTRUCT
State of Idaho
Department of Environmental Quality

PERMIT No.: P-060518
FACILITY ID No.: 023-00001
AQCR: 61 **CLASS:** A
SIC: 9511 and 8733 **ZONE:** 12
UTM COORDINATE (km): 342.3, 4821.2

1. PERMITTEE

U.S. Department of Energy/ Idaho National Laboratory/ Central Facilities Area

2. PROJECT

Boiler CFA-609-005 (Cleaver Brooks Boiler), increase annual fuel usage

3. MAILING ADDRESS

1955 Fremont Avenue

CITY

Idaho Falls

STATE

ID

ZIP

83401

4. FACILITY CONTACT

Teresa Perkins

TITLE

Director, Environmental Technical
Support Division

TELEPHONE

(208) 526-1483

5. RESPONSIBLE OFFICIAL/TITLE

Manager, Department of Energy-Idaho Operations Office
Vice President, Battelle Energy Alliance, LLC

TELEPHONE

(Obtain telephone numbers through
facility contact if necessary)

6. EXACT PLANT LOCATION

Scoville, Idaho, approximately 50 miles west of Idaho Falls, and about 1 mile north of
Hwy 20/26. Location Legal Description: SW quarter, Section 1, T2N, R293, BM

COUNTY

Butte

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Nuclear and Environmental Research and Development

8. GENERAL CONDITIONS

This permit is issued according to IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200, et seq.

TONI HARDESTY, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED: PROPOSED PERMIT

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Acronyms, Units, and Chemical Nomenclature

AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
CFA	Central Facilities Area
CFR	Code of Federal Regulations
DEQ	Department of Environmental Quality
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
INL	Idaho National Laboratory
km	kilometer
lb/hr	pound per hour
MMBtu	million British thermal units
PM	particulate matter
PTC	permit to construct
SIC	Standard Industrial Classification
T/yr	tons per year
UTM	Universal Transverse Mercator

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1. PERMIT TO CONSTRUCT SCOPE

Purpose

- 1.1 The purpose of this PTC modification is to increase the allowable fuel throughput for the CFA-609-005 (Cleaver Brooks) boiler at the CFA-609 HQ/SRT Building from 25,000 gallons per year to 35,000 gallons per year, and to increase the allowable emissions of particulate matter (PM) from this boiler from 0.025 tons per year to 0.035 tons per year. This will allow greater operational flexibility, particularly during periods of cold weather. The facility contact and responsible official information is also being updated.
- 1.2 This PTC replaces PTC No. 023-00001, issued on December 5, 1995, and modified on February 14, 1996, the terms and conditions of which no longer apply.

Regulated Sources

Table 1.1 lists all sources of regulated emissions in this PTC.

Table 1.1 SUMMARY OF REGULATED SOURCES

Permit Section	Source Description	Emissions Control(s)
2	<u>CFA-609-005 Space-Heating Boiler</u> Manufacturer/Model: Cleaver Brooks CB-101-50 Rated capacity: 2.092 MMBtu/hr Fuels: ASTM No. 1 fuel oil, ASTM No. 2 fuel oil, JP-4 jet fuel, JP-8 jet fuel	None

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2. BOILER NO. CFA-609-005 (CLEAVER-BROOKS BOILER)

2.1 Process Description

Boiler CFA-609-005 provides space heating for the CFA-609 HQ/SRT Building.

2.2 Emissions Control Description

No emissions controls are provided on this boiler.

Emission Limits

- 2.3** Particulate matter (PM) emissions from boiler CFA-609-005 shall not exceed any corresponding emission rate limit listed in Table 2.1.

Table 2.1 PM EMISSIONS FROM BOILER CFA-609-005

Source Description	PM (lb/hr)¹	PM (T/yr)²
Boiler No. CFA-609-005	0.03	0.035

¹ Pounds per hour based on a monthly average.

² Tons per year based on any consecutive 12-month period.

2.4 Opacity Limit

Emissions from the boiler stack, or any other stack, vent, or functionally equivalent opening associated with the CFA-609-005 boiler, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

Operating Requirements

2.5 Boiler Fuel

The boiler shall burn distillate fuel oil (ASTM Grade 1 or ASTM Grade 2), JP-4, or JP-8 fuel.

2.6 Fuel Sulfur Content Limit

The permittee shall not burn any fuel in the boiler with a sulfur content greater than:

- 0.3 weight percent, for ASTM Grade 1 fuel oil, and
- 0.5 weight percent, for ASTM Grade 2 fuel oil, JP-4, or JP-8 jet fuel.

2.7 Boiler Fuel Consumption

The total fuel consumption of the boiler shall not exceed 35,000 gallons in any consecutive 12-month period.

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Monitoring, Recordkeeping, and Reporting Requirements

2.8 Fuel Sulfur Content

The permittee shall maintain documentation of supplier verification of fuel sulfur content on an as-received basis.

2.9 Operating Parameters Monitoring

2.9.1 The permittee shall monitor and record the Boiler CFA-609-005 fuel consumption by type of fuel combusted per month and per any consecutive 12-month period. A compilation of the most recent five years of records shall be maintained on site and shall be made available to DEQ representatives upon request.

2.9.2 The permittee shall calculate and record the average pounds per hour per month PM emissions and PM emissions per consecutive 12-month period from Boiler CFA-609-005 using appropriate EPA AP-42 or manufacturer supplied emissions factors, or a DEQ approved alternative method. A compilation of the most recent five years of records shall be maintained on site and shall be made available to DEQ representatives upon request.

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3. PERMIT TO CONSTRUCT GENERAL PROVISIONS

General Compliance

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.
[Idaho Code §39-101, et seq.]
2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
[IDAPA 58.01.01.211, 5/1/94]
3. Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules and regulations.
[IDAPA 58.01.01.212.01, 5/1/94]

Inspection and Entry

4. Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:
 - a. Enter upon the permittee's premises where an emissions source is located or emissions related activity is conducted, or where records are kept under conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d. As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.**[Idaho Code §39-108]**

Construction and Operation Notification

5. The permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211:
 - a. A notification of the date of initiation of construction, within five working days after occurrence;
 - b. A notification of the date of any suspension of construction, if such suspension lasts for one year or more;

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- c. A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date;
- d. A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
- e. A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211, 5/1/94]

Performance Testing

- 6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00]

Monitoring and Recordkeeping

- 7. The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Records of monitoring information shall include, but not be limited to the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 5/1/94]

Excess Emissions

- 8. The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for

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excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

[IDAPA 58.01.01.130-136, 4/5/00]

Certification

9. All documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

[IDAPA 58.01.01.123, 5/1/94]

False Statements

10. No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit, or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

Tampering

11. No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Transferability

12. This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

[IDAPA 58.01.01.209.06, 4/11/06]

Severability

13. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.